Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)
	)
Revision of the Commission's Rules to Ensure	) CC Docket No. 94-102
Compatibility with Enhanced 911 Emergency	)
Calling Systems	)
	)

To: The Wireless Telecommunications Bureau

REQUEST FOR LIMITED WAIVER

Brookings Municipal Utilities d/b/a Swiftel Communications ("Swiftel"), by its attorneys and pursuant to Sections 1.3 and 1.925 of the Commission's Rules,[1] hereby requests a limited waiver of the June 30, 2002 deadline by which digital wireless systems must be capable of transmitting 911 calls from Text Telephone Devices ("TTY"). This requirement was imposed by the *Fourth Report and Order* in the above-captioned docket and Section 20.18 (c) of the Commission's Rules.[2] In particular, the decision by Swiftel's network vendor to discontinue the manufacture and support of certain switch hardware used by Swiftel, and the vendor's refusal to support for more than 28 days a software configuration that would allow Swiftel to provide TTY capability during the switch upgrade process have made Swiftel's timely compliance with Section 20.18 (c) impossible. Swiftel requests a limited waiver of the E911 TTY requirement for the period of time that it takes for Swiftel and its vendor to install and transition its operations to a new wireless switch. In support of Swiftel's request, the following is shown:

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[1]   47 C.F.R. §§ 1.3, 1.925.

[2]   *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Fourth Report and Order*, CC Docket No. 94-102, 15 FCC Rcd 25216 (2000); Section 20.18(c) of the Rules provides that "Licensees subject to this section must be capable of transmitting 911 calls from individuals with speech or hearing disabilities through means other than mobile radio handsets, *e.g.*, through the use of Text Telephone Devices (TTY). 47 C.F.R. § 20.18 (c). A note to Section 20.18(c), also referred to as "Paragraph (c)," provides, "Operators of digital wireless systems must begin complying with the provisions of this paragraph on or before June 30, 2002."

I.   BACKGROUND

Swiftel is a South Dakota municipal utility company that provides broadband PCS

service in rural and less populated markets using licenses that were partitioned/disaggregated

from the Minneapolis-St. Paul and Des Moines-Quad Cities MTAs.[3] Swiftel's CDMA network

uses base stations and switching equipment from Nortel Networks ("Nortel"). Therefore, Swiftel

has been dependent on Nortel for the provision of digital TTY capability, as well as for keeping

Swiftel apprised of developments that might affect Swiftel's ability to support TTY access on its

digital wireless network. Swiftel applauds Nortel for its work with the TTY Forum, an entity

that has brought together representatives of the wireless industry and advocates for the hearing

impaired in an unprecedented effort to develop industry standards necessary to promote TTY

access to all wireless networks.   However, as the TTY Forum has reported, progress has not

been the same for all digital wireless technologies and switch platforms In this regard, Swiftel

has received conflicting reports from Nortel sales representatives about the availability of and

ongoing support for TTY upgrade software that will operate on its DMS-100 Dual Load

"Wireless on Wireline" switch.   The bottom line is that Nortel has decided that it will not

support a software configuration that will permit TTY capability on an ongoing basis using the

Dual Load switch. In this context, Swiftel has no choice but to seek a limited waiver of the E911

TTY requirement.

By way of background, over the past year Nortel made a business decision to discontinue

its DMS-100 Dual Load Wireless on Wireline product. The software version that Swiftel is

currently running on its Dual Load switch (LWW007) includes wireless MTX09, but Nortel has

indicated that this is the last software upgrade that it will make available for our switch. As

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[3]   Swiftel holds licenses under Call Signs WPOI260 and WPLQ803, corresponding to 10 MHz of spectrum over the Basic Trading Areas of Sioux Falls. SD (Market B422). Watertown, SD (Market B464) and Sioux City, IA (Market B421).

recently as March 29, 2002, Nortel indicated in a regulatory FAQ/RFI that TTY capability <u>would be supported by MTX09</u> switch software, running NBSS 10.1.2 on the base stations, and that <u>MTX10 was not required</u>.[4] Therefore, Swiftel reasonably concluded that it would be able to provide TTY capability on its network during the transition period from operating with the Dual Load switch to operating with separate wireless and wireline switches.

Most recently, Nortel's technical staff has informed Swiftel that it would only support NBSS 10.1.2 (and TTY capability) on the Dual Load switch "for a limited time, approximately 28 days or less."[5] Nortel has indicated that its goal is "for customers to upgrade the switch to the MTX10 software load during this limited time period."[6] An important point left unstated in this correspondence is that Nortel is <u>not</u> making a version of MTX10 software available to run on the Dual Load platform on an ongoing basis. Therefore, Nortel is forcing its Dual Load customers to purchase a new switch (at great expense) if they want to comply with the Commission's E911 digital TTY access requirement and Nortel is <u>not</u> supporting TTY capability for these customers while they transition to separate wireless and wireline switches.

Swiftel began developing technical specifications for a new wireless switch back in January of 2002. However, because Swiftel is a municipal entity, it must follow a competitive bidding process established by the State of South Dakota. In this regard, the Brookings Municipal Utility Board granted authorization for bidding back on February 25, 2002. The Utility Board awarded the MTX wireless switch contract on May 28, 2002, and Purchase Order No. 311393 was signed, approved and issued to Nortel on the same date. Nortel has agreed to

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[4]   *See* Nortel Regulatory FAQ/RFI, *dated* March 29, 2002 (Attachment A, *below*).

[5]   *See* E-mail correspondence from Thomas Skidmore, Nortel Networks, re: Swiftel – Brookings NBSS10.1.3, *dated* April 12, 2002 (Attachment B, *below*).

[6]   *Id.*

provide the new switch within six months from the date of the purchase order. To this must be added the one- to three- months it is expected to take to split the traffic from the existing switch (a process that is highly unusual and will be a feat of technical complexity to perform seamlessly) and additional time to upgrade and troubleshoot the new system software. Therefore, it is clear that an extension of at least nine months (*i.e.*, until March 31, 2003) will be needed for Swiftel to implement its new wireless switch and to provide TTY capability on its network. Swiftel will endeavor to provide TTY capability before this extended deadline, if at all possible.

II. GOOD CAUSE EXISTS FOR WAIVER OF THE JUNE 30, 2002 DEADLINE

Good cause exists for the FCC to grant Swiftel's request for a limited waiver of the June 30, 2002 TTY compliance deadline.[7] Good cause is shown and waiver of a rule is appropriate if "special circumstances warrant a deviation from the general rule and such deviation will serve the public interest."[8] Similarly, under the Commission's rules governing Wireless Radio Services, the Commission may grant a waiver if, in view of unique or unusual factual circumstances of the case, application of the rule would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.[9]

In Swiftel's case, special circumstances exist because the necessary software for providing digital TTY capability on its Dual Load switch is not available in a configuration that will be supported on an ongoing basis by its vendor. Swiftel reasonably relied upon its vendor's representations that an appropriate software upgrade would be available and could be operated

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[7]   The Commission may grant an extension or waiver of a compliance deadline for good cause shown. *See* 47 C.F.R. § 1.3.

[8]   Northeast Cellular Telephone Co. v. FCC, 897 F.2d 1164, 1166 (D.C. Cir. 1990); *see also* WAIT Radio v. FCC, 418 F.2d 1153 (D.C. Cir 1969).

[9]   *See* 47 C.F.R. § 1.925(b)(3).

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on its current switch during the transition to separate wireless and wireline switches. As noted above, Swiftel did not learn until mid-April of this year that it would need to purchase a new switch if it wanted to comply with the June 31, 2002 deadline. Moreover, as a municipal entity, Swiftel was unable to submit an immediate purchase order for the new switch because it is required under South Dakota law to use competitive bidding. Even if Swiftel could somehow get around these required procedures, Nortel's indication that it would require six months following the issuance of a purchase order to provide Swiftel with a new switch makes it clear that Swiftel would be unable to meet the digital TTY implementation deadline in any event. The Commission has consistently concluded that waiver of a regulatory deadline is appropriate when non-compliance "is due to circumstances beyond the licensee's control."[10] Moreover, in the context of other Section 20.18 regulations governing deployment of 911 location identification capabilities, the Commission has specifically recognized that "technology-related issues" delaying implementation could warrant grant of a waiver to allow for their resolution.[11]

Swiftel has been diligent in promptly developing technical specifications and initiating the municipal procurement process as soon as possible. Strict enforcement of the TTY compliance deadline in this instance would be inequitable and especially burdensome on a small carrier such as Swiftel because it lacks the resources and market power that larger carriers can use to influence vendor delivery schedules and to participate in technology development and beta testing programs.

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[10] *E.g., Order*, McElroy Electronics Corp.; Request for Clarification of Commission Rules Regarding Section 22.911(a) in Relation to Construction of Cellular System for Market No. 15-A2, 13 FCC Rcd. 7291, 7295, ¶ 8 (WTB 1998).

[11] *See* Fourth Memorandum Opinion and Order, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, FCC 00-326, 15 FCC Rcd. 17442, 17459, ¶ 43 (2000) ("In the case of E911, we have recognized that there could be instances where technology-related issues or exceptional circumstances may mean that deployment of Phase II may not be possible by October 1, 2001, and indicated that these cases could be dealt with through individual waivers as these implementation issues are more precisely identified.").

Finally, the underlying purpose of Section 20.18(c) – "requiring carriers to achieve

TTY/digital compatibility at the earliest possible date"[12] – would be frustrated by strict

enforcement of the rule's June 30, 2002 deadline in Swiftel's case. The FCC has suspended and

waived the compliance deadline as to digital wireless carriers for more than three years "because

the technology did not exist to enable TTY signals to be transmitted over digital wireless systems

at the time the rule was originally implemented."[13] When it became apparent that the wireless

industry and representatives of the disability community had developed solutions for nearly all

air interfaces, the FCC adopted a two-stage deadline where carriers were to have obtained all

software upgrades and equipment necessary for their systems to be capable of transmitting 911

calls from TTY devices by December 31, 2001, and "an additional six-month period (until June

30, 2002) to integrate, test, and deploy the technology in their systems in conjunction with the

public safety community."[14] Enforcing a strict deadline against Swiftel when its vendor has

chosen not to support the necessary software upgrades for TTY capability for more than 28 days

would defeat the whole purpose of the rule because it would deprive Swiftel of any meaningful

opportunity to integrate, test and deploy the new technology in conjunction with PSAPs in its

operating territory. In contrast, granting Swiftel a reasonable extension to implement the new

wireless switch would promote these interests without significantly delaying the availability of

digital TTY access to the hearing impaired in Swiftel's operating territory.

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[12]   *Fourth Report and Order* at ¶ 29.
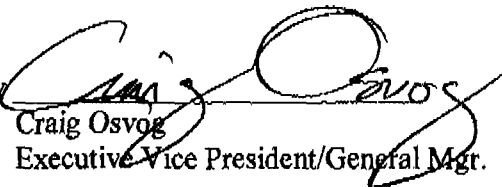
[13]   *Id.* at ¶ 7.

[14]   *Id.* at ¶ 8.

III. CONCLUSION

Based on the foregoing, Swiftel respectfully requests that the Commission grant it a temporary waiver of Section 20.18 (c) of the Commission's Rules regarding the June 30, 2002 deadline and extend the deadline to permit Swiftel to implement its TTY solution by March 31, 2003.

Respectfully submitted,

Brookings Municipal Utilities d/b/a Swiftel Communications

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Dated: June 27, 2002

Attachment A

March 29, 2002 Nortel FAQ/RFI

Enclosed is information regarding Nortel Networks' plans to deliver TTY solutions to market in support of CDMA service providers ability to meet FCC TTY milestone objective.

- What is the status of TTY/TDD network infrastructure **software/hardware development and testing?**

  Nortel Networks response: Nortel Networks' development and product test is based on current standards: IS-127-2 (EVRC) & IS 733-1 (13K Vocoder). New revisions of these standards namely IS-127-3 (EVRC TTY) & IS-733-2 (13K TTY) have been published as of September 2001. Nortel Networks plans to support this new addendum to the standards in our next scheduled software release; MTX11/NBSS11 is scheduled to be GA Q4 2002. Operators will be able to deploy the Nortel Networks TTY solution based on the current standards IS-733-1, IS127-2 to meet the FCC deadline for implementation. Nortel Networks has completed internal testing using prototype and recently using commercial mobile handsets with TTY capabilities from only a few vendors, which have all shown positive results. Nortel Networks does not anticipate performance issues with any other vendor's handsets once they come available. Nortel Networks has also performed tests with a leading manufacturer of TTY/TTD PSAP equipment to ensure interoperability. Results of that specific testing were found to be positive.

- What is Nortel Networks TTY/TDD plans to test and confirm solution performance including additional tests referenced in Sections 20-23 of the **FCC 4th Rule and Order 12-14-2000?**

  Nortel Networks response: Regarding Section 20-23, Turbocode and HiSpeed is each a proprietary feature of TTY device vendors Ultratec and Ameriphone, respectively. Due to the code being proprietary Nortel Networks will not test or support these enhanced solutions. Standards are designed to avoid supporting proprietary methods, and Nortel Networks is not aware of any effort to standardize these proprietary features. The FCC does not require vendors to support TTY enhanced signaling.

- What are the **hardware baseline and software baseline** to support CDMA TTY/TDD functionality?

  Nortel Networks response:

Regulatory solution required	CDMA HW/SW baseline
TTY/TDD	MTX09 SW (DMS-MTX) NBSS10.1.2 SW (BSS) TTY capable handsets (3rd party)

- What **software baseline** must the MTX be running in order to upgrade to MTX10 and/or NBSS10.1.1?

  Nortel Networks response: The MTX is required to be running MTX09 in order to upgrade to MTX10 and/or NBSS10. Nortel Networks has always maintained an allowance for CSP or Communication Services Platform "jumps" from MTX release to MTX release. The MTX has received significant changes due to moving to a multi-processing architecture. It is because of the new CSP14 layer of the MTX10 release that an MTX cannot upgrade safely from MTX08 directly to MTX10.

- What is the Network infrastructure software/hardware **planned general availability dates** that support the deployment of this regulatory feature?

  Nortel Networks response: In order to allow Carriers to comply with the FCC's June 30, 2002 requirement for TTY/TDD implementation, Nortel Networks current plan for the enabling software full availability is:

Software load	CDMA SW general availability
MTX09	Now Available
NBSS10.1.2 with MTX09	January 25, 2002*
MTX10 CDMA – not req'd	December 07, 2001 –Now Available

  * To date all Nortel Networks customers who have scheduled a MTX10/NBSS10.1 upgrade have the ability to become fully compliant to the FCC TTY/TTD mandate prior to the June 30, 2002.

- How is the software/hardware for TTY/TTD **subscribers provisioned** in the network?

  Nortel Networks response: The provisioning for TTY must be done the same way as for the voice subscribers.

- What is the **schedule for deployment** of the software/hardware in the network?

  Nortel Networks response: The minimum baseline software requirements for this functionality are given above. For questions related to scheduling its deployment into a carrier's network, please contact Nortel Networks Product Deployment. All those CDMA customers who have ordered and scheduled for NBSS10.1.2 upgrade are currently showing plans for full network NBSS upgrade prior to June 30, 2002.
  Nortel Networks recommends that all customers who have not yet ordered and scheduled upgrade to NBSS10.1.2 contact Nortel Networks to ensure software upgrade prior to June 30, 2002.

- For TTY/TDD what are the plans to work with any wireless carrier to perform **end-to-end customer tests**, and when will this occur?

  Nortel Networks response: The verification process for NBSS 10.1 with the customer began in June 2001. Nortel Networks had recommended that operators engage their chosen CDMA TTY handset vendor during the verification process or VO process to participate in interoperability testing with the Nortel Networks solution. As of November 1st, 2001 TTY capable handsets had recently been acquired by all of our CDMA service provider VO partners. Due to the lateness of the terminals availability, Nortel Networks was unable to verify the interoperability of the TTY feature with the entire NBSS10.1.1 load in time for the planned GA date. Since that time Nortel Networks has created a "maintenance" NBSS load, NBSS 10.1.2, that will correct some minor performance issues, TTY fixes are also included. **The NBSS10.1.2 software release, which includes the TTY/TTD solution, has been fully verified within one or more of our lead customer's live networks.** The Nortel Networks TTY/TTD solution showed TCER of less than 1% in most cases and marginally exceeded 1% TCER is only the most strenuous RF and TTY/TTD test conditions. Nortel Networks used several different TTY mobile terminals during these test activities. Please note the 1% TCER is not part of the FCC mandate.

All verification activities were dependent upon the availability of commercial grade CDMA TTY/TTD handsets.

- What are Nortel Networks plans to test their own or other vendor handsets with your switch solution?

<u>Nortel Networks response</u>: Nortel Networks provides only infrastructure for wireless networks. Nortel Networks does not provide mobile handsets. Nortel Networks infrastructure software, namely NBSS10.1, was available in June 2001 for scheduled external end-to-end customer testing. This testing activity was scheduled to complete in advance of the Dec 31, 2001 FCC requirement. Our lead verification customers did not acquire commercial grade TTY handset until much later in the test window. Nortel Networks recommends that the operator engage its handset vendor(s) in order to respond to the FCC regarding handset availability.

Operators are encouraged to request their handset vendors to test their commercial grade CDMA TTY capable handsets in Nortel Networks Wireless Interoperability Test Lab.

Please contact Cher Bruce for scheduling TTY testing in the Nortel Networks Wireless Interoperability Test Lab, where testing is based on current published standards (Phone: 972-684-2299; Fax: 972-684-3881; <u>csbruce@nortelnetworks.com</u>)

- **Contacts:**

Product Marketing	MTX10/NBSS10.1 SW	Kurt Raaflaub	(972) 685-2971
Product Management	CDMA TTY/TDD	Maniam P	(972) 685-7203
Regulatory	E911Ph2&TTY/TDD	Charles Spann	(903) 852-6798
Product Deployment	CDMA NBSS SW	Mark Schwarzer	(972) 685-5851

Attachment B

E-mail correspondence from Thomas Skidmore, Nortel Networks, re: Swiftel – Brookings
NBSS10.1.3, *dated* April 12, 2002

-----Original Message-----
From: Thomas Skidmore [mailto:skidmore@nortelnetworks.com]
Sent: Monday, April 15, 2002 11:14 AM
To: Jim Adkins
Cc: Curt Kabris; John Fairbanks; David Nielson; Susan Klamner; Thomas Goddard; Danny-Scott Hartsell; Jennifer Hammett; Richard Dennis
Subject: RE: Swiftel - Brookings NBSS 10.1.3
Importance: High

This is a re-send of Friday's email. Jim did not receive it.

Tom Skidmore

-----Original Message-----
From: Skidmore, Thomas [MAST:8973:EXCH]
Sent: Friday, April 12, 2002 5:25 PM
To: 'Jim Adkins'
Cc: Curt Kabris; John Fairbanks; Nielson, David [SCH:9126:EXCH];
Klamner, Susan [CORD:R038:EXCH]; Goddard, Thomas [CORD:7301:EXCH];
Hartsell, Danny-Scott [RICH1:3141:EXCH]; Hammett, Jennifer
[MAST:7301:EXCH]; Dennis, Richard [NC1:4417:EXCH]
Subject: RE: Swiftel - Brookings NBSS 10.1.3

Jim,

I will do my best to explain the apparent discrepancy as it has been explained to me.

The combination of the LWW07 (comparable with MTX09) and NBSS 10.1.2 software loads will provide Carriers the ability to comply with the FCC's June 30, 2002 requirement for TTY / TDD implementation. However, Nortel intends for its customers to be in this configuration for a limited time, approximately 28 days or less. The goal is for customers to upgrade the switch to the MTX10 software load during this limited time period.

Swiftel has requested engineering support from Nortel to be in the approved configuration for an extended period, approximately 270 days. Nortel has denied this request. We have not tested the configuration for that length of time, and we do not know what complications may arise if you choose to operate for the extended period. Swiftel has the option to choose to operate in an unsupported configuration, but Nortel would not be able to provide assistance should a complication occur.

I do not believe that the statement in your email regarding Nortel Networks being solely responsible is accurate. We had our initial face-to-face meeting with Swiftel on the 100W transition on Monday, April 16, 2001. We were not given firm notification of your intent to split the 100W into two separate switches until today, Friday, April 12, 2002 - one year later.

I hope that I have been able to explain this to your satisfaction. Please let me know if you have any additional questions.

Thanks,

Tom Skidmore

office - 913 / 469-7476
pcs - 913 / 226-7476
fax - 913 / 469-7434
email - skidmore@nortelnetworks.com

From: Jim Adkins [<mailto:jadkins@brookings.net>]
Sent: Thursday, April 11, 2002 10:37 AM
To: Skidmore, Thomas [MAST:8973:EXCH]
Cc: Curt Kabris; John Fairbanks; Nielson, David [SCH:9126:EXCH];
Klamner, Susan [CORD:R038:EXCH]; Goddard, Thomas [CORD:7301:EXCH]
Subject: FW: Swiftel - Brookings NBSS 10.1.3
Importance: High

Tom,
As you are aware, wireless carriers have an FCC mandate to comply with
TTY/TDD functionality by June 30, 2002. You recently responded to my
question regarding Nortel Networks plans to deliver TTY solutions to your
customers by sending an e-mail with the attachment (02-03-29
CDMA_TTY_Nortel_response_Mar29_02.doc) - attached. On page two of the "CDMA
TTY/TDD Regulatory FAQ/RFI", Nortels' current plan is software load MTX09
with NBSS10.1.2 and MTX10 CDMA not required. Swiftel wishes to upgrade to
NBSS10.1.2 with MTX09 prior to the June 30, 2002 deadline. Additionally, we
are required to file a report with the FCC by April 15, 2002 stating the
level our readiness for this capability. I conveyed the information you
sent to our FCC attorney, who is preparing the TTY/TDD FCC filing.
Unfortunately, this morning, I received this most troubling e-mail
discussion which directly conflicts with the information you sent! Please
clear this up at the earliest possible time so we may file an accurate
response with the FCC.

I realize the discussion below does not directly relate to the TTY/TDD
discussion. However, it does go directly to the point of operating
NBSS10.1.2 with MTX09 as contained in the LVWW07 load. As you are aware, we
will be adding a wireless switch as soon as possible due to the elimination
of the development of the LVWW load. In the interim however, Nortel Networks
has represented that it will (and I believe is required to) provide support
for software level LVWW07. You are also aware that Swiftel finds itself in
this position due solely to the actions of Nortel Networks.

Your earliest response will be appreciated!
Sincerely,

<<02-03-29 CDMA_TTY_Nortel_response_Mar29_02.doc>>
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